

BULLETIN
OF THE
BRITISH ORNITHOLOGISTS' CLUB



Volume 83

Number 2

Published: 8th February, 1963

The six hundred and fourth meeting of the Club was held at the Rembrandt Hotel, London, on 15th January, 1963.

Chairman: MR. R. S. R. FITTER

Members present: 16; guests 3; total 19.

Dr. D. Summers-Smith gave a well illustrated address on

The House Sparrow

It is postulated that the Palaearctic sparrows (genus *Passer*) evolved from an ancestral sparrow spreading from tropical Africa down the Nile valley into the Mediterranean region. Some of these birds came into contact with man, who in the Tigris-Euphrates region was evolving from a nomadic hunting way of life to a sedentary agricultural one, and becoming closely associated with him evolved as the species we now call the House Sparrow, *Passer domesticus*. This species spread with agricultural man and by the beginning of the 19th century was present over most of Europe and southern Asia as far as Burma. With the opening of Siberia to agriculture it has spread across to the Pacific coast and from deliberate introductions to other parts of the world colonised by men from western Europe it is now present over much of the land surface of the globe. Not only is it probably the most widely spread species of land bird, but censuses carried out in many parts suggest it is also the commonest.

Observations of colour-ringed birds in England show that this species is extremely sedentary, many individuals living their lives within a compass of one or two miles from their birth place. Pairs are not only faithful to each other but retain the same nest-site throughout their lives. Contrary to expectation in a resident species, the greatest mortality among the adults occurs during the breeding season and not in the winter months.

It is suggested that the key to the bird's success has been its association with man. This has provided it with secure breeding sites and an assured food supply throughout the year and has allowed it to take up a sedentary way of life with the consequent advantages this affords. Continued spread and population increase are to be expected with the increasing agricultural development and urbanisation that are now taking place all over the world.

Comments on a hybrid Red Shoveler x Northern Shoveler

by JAMES M. AND JEFFERY G. HARRISON

(Exhibited to the B.O.C. on 15th May, 1962)

SUMMARY

A hybrid between the Red Shoveler *Anas platalea* Vieillot and the Northern Shoveler *Anas clypeata* Linnaeus shows certain characters



Red Shoveler x Northern Shoveler



Chin and throat of hybrid Red Shoveler x Northern Shoveler, showing how the cheek crescents unite, just behind the blackish throat; also the spotting on the whitish breast

referable to the parent species and others referable to the Australasian Shoveler *Anas rhynchotis* Latham and the Mallard *Anas platyrhynchos* Linnaeus. The latter are considered to have arisen by gene recombination and to be ancestral, providing further evidence that the Shoveler species group developed by a single direct line of evolution with close affinities to the Mallard.

INTRODUCTION

About five years ago, Frank Grant of Evington, Leicestershire, bred three hybrids between a drake Red Shoveler *A. platalea* and a duck Northern Shoveler *A. clypeata*. All three were drakes by plumage and were aggressive and unsatisfactory to keep with other wildfowl. Through the kindness of Richard Bream we have been able to borrow a mounted drake of one of these hybrids in full plumage, beautifully prepared by E. Williams of the Leicester Museum. Mr Bream tells us that this specimen was in its third year and that its full plumage had been the same in each of its three seasons.

DESCRIPTION

Apart from the head and neck, the characters shown by the hybrid incline strongly towards the Red Shoveler, particularly in the spotting on the pale chestnut scapulars and flanks. The breast is also heavily spotted, as in that species, but the ground colour is pale buffy-white and is of approximately the same extent as is the white breast of the drake Northern Shoveler, so that a similar but less obvious pattern contrast is present between the breast and belly, which is lacking in the Red Shoveler. The remainder of the belly is bright reddish-chestnut, as in the Northern Shoveler, finely spotted or barred with black towards the periphery. There are two prominent white patches on either side of the rump, comparable to the Northern rather than the Red Shoveler. The under and upper tail-coverts are black, the central tail feathers are rather more elongated than in the Northern Shoveler (see measurements) and sepia; the remainder of the tail feathers are whitish, barred sepia. The rump is dark sepia. The mantle is pale chestnut with prominent dark sepia crescents. The wings and long scapulars are as in all Shovelers and present no modification with the typical bright blue shoulders, green speculum, edged broad white in front, narrow white behind and the long scapulars are white, black and blue.

The crown, lores and throat are dark sepia, almost black, with a slight purplish reflection on the crown. Running upwards on either side in front of the eyes are prominent whitish crescents, somewhat speckled with dusky striations. The concave sides are towards the eyes and extend level with them, above and below. These crescents join below on the chin, just distal to the blackish throat patch. The remainder of the cheeks and neck are lavender-grey, lightly reflecting a bluish-green. This colour and the pale crescents can be exactly matched by some specimens of the Australasian Shoveler *A. rhynchotis*.

The specimen shows a well developed white ring between the neck and upper breast: this is almost complete, though just separated at the back by a narrow extension downwards of the lavender-grey of the neck. This character can be matched by the drake Mallard *A. platyrhynchos* and as a transient character by certain first year drakes of the Northern Shoveler,

while moulting into first winter plumage. This character is of considerable interest, particularly as the bird is an adult and the character constant.

The irides were dull yellow, the tarsi and toes ochreous yellow, webs dusky, as in the Red Shoveler and the bill black.

The measurements in mm. were as follows:

	Red Shoveler ♂♂ (after Delacour)	Hybrid	Northern Shoveler ♂♂ (after Delacour)
Wing	213-222	242	230-252
Culmen	63-67	64	60-70
Tarsus	34-38	38	32-37
Tail	115-120	96	72-85

It will be noted that the tail has become elongated well beyond the normal range of the Northern Shoveler and the wing elongated well beyond the normal range of the Red Shoveler, so that on size a definite intermediacy is present.

DISCUSSION

This remarkable hybrid is of considerable interest, in that it possesses not only characters of its two parent species, but also characters on the head and neck, which are found in two other dabbling duck species, the Mallard and the Australasian Shoveler, the cheek crescents being as well marked as many of the New Zealand race of the latter *Anas rhynchotis variegata* Gould.

We are considering, therefore, a further example of heterophoric reverse mutation, which brings it into line with the hybrid European Green-winged Teal *Anas crecca crecca* Linnaeus x Northern Shoveler *Anas clypeata* Linnaeus (Harrison 1953) and the hybrid Wigeon *Anas penelope* Linnaeus x Northern Shoveler *Anas clypeata* Linnaeus (Harrison, 1959), both of which developed head patterns resembling none of the three parent species involved. Instead, both head patterns were very similar to that of the drake Baikal Teal *Anas formosa* Georgi, being strongly "bimaculated".

In this case, the three characters not found in either parent species are first, the strongly marked whitish crescentic markings on the cheeks, meeting under the chin. This can be exactly matched by drakes of the Australasian Shoveler, as can the second character, the pale lavender-grey on the sides of the head and neck, with bluish-green reflections.

The third character, the prominent white neck ring is strictly comparable to the white neck ring of the Mallard drake, being of the same proportion and in exactly the same position in the hybrid. In this connection, it is of interest to remember that Northern Shoveler, first winter drakes in transition plumage, often show transient white neck rings and pale cheek crescents (Harrison and Harrison, 1959), so that for a few weeks only, young Northern Shoveler drakes may have a pattern remarkably similar on the head and neck to the hybrid, although less striking in appearance. An example was illustrated in our paper (1959, *loc. cit.*) on p. 138. The

difference in the hybrid is that the pattern has been shown to be constant, persisting into adult full plumage.

We consider that the neck ring, cheek crescents and colour of the sides of the head and neck are all ancestral characters revealed by gene recombination in the hybrid state. The white neck ring is further evidence in confirmation of Delacour's opinion (1956) that the Shoveler species group has affinities with the Mallard. The last two characters indicate the close affinities between the three Shoveler species inhabiting the Holarctic area, South America and Australasia respectively.

This only leaves the one other Shoveler species, the Cape Shoveler *Anas smithi* (Hartert) of South Africa and it is noteworthy that Winterbottom and Middlemiss (1960) consider that *clypeata* and *smithi* diverged before the latter had evolved a marked sexual dimorphism, and that *smithi* has probably remained close to the ancestral form from which *clypeata* evolved.

This hybrid therefore provides further striking evidence that the Shoveler species have arisen, not by parallel evolution in widely separated parts of the world, but by a single distinct line of evolution (Delacour's "Blue-winged Ducks") within the genus *Anas*, and with close affinities to the Mallard. The "bimaculated" face pattern revealed in the other two hybrids in which the Northern Shoveler was involved is probably even more ancestral, the crescent being a part of this character, which has become dominant in some forms.

ACKNOWLEDGEMENTS

We are most grateful to Richard Bream, Frank Grant and Geoffrey Grant of the Leicestershire Wildfowlers' Association for telling us of the hybrid and to the former for the loan of the specimen. We would also like to express our thanks to Mr. J. D. Macdonald for permission to study the necessary comparative material in the British Museum (Natural History) and to Mrs. Pamela Harrison for the photographs illustrating this paper.

References:

- J. M. Harrison (1935). On the significance of Variations of Pattern in Birds. *Bull. B.O.C.* Vol. 73, pp. 37-39.
- J. M. Harrison (1959). Comments on a Wigeon x Northern Shoveler Hybrid. *Bull. B.O.C.* Vol. 79, pp. 142-151.
- J. M. Harrison and J. G. Harrison (1959). Evolutionary Significance of Certain Plumage Sequences in Northern Shoveler. *Bull. B.O.C.* Vol. 79, pp. 135-142.
- J. Delacour (1956). The Waterfowl of the World.
- J. M. Winterbottom and E. H. J. Middlemiss (1960). Notes on the Cape Shoveler. *Bull. B.O.C.* Vol. 80, pp. 154-162.

Notes on African Estrildinae

by C. M. N. WHITE

Received 24th September, 1962

The present notes have been prepared whilst revising the African waxbills for the final section of my revised Check List of African passerine birds. I prefer to keep the waxbills as a subfamily of the *Ploceidae*, and not to raise them to full family status as Steiner has proposed should be done.